

Table ENG-4. - Building Site Development

Giles County, Virginia

The information in this table indicates the dominant soil condition, but does not eliminate the need for onsite investigation. The numbers in the value column range from 0.01 to 1.00. The larger the value, the greater the potential limitation. Limiting features in this report are limited to the top 5 limitations. Additional limitations may exist.

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
1B:							
Allegheny	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
		Flooding	0.40				
1C:							
Allegheny	95	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Frost action	0.50	Cutbanks cave	0.10		
		Slope	0.37				
2D:							
Berks	90	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Droughty	1.00
		Depth to hard bedrock	0.95	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10	Depth to bedrock	0.95
2F:							
Berks	90	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.95	Slope	1.00	Droughty	1.00
				Cutbanks cave	0.10	Depth to bedrock	0.95
3F:							
Berks	90	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.95	Slope	1.00	Droughty	1.00
				Cutbanks cave	0.10	Depth to bedrock	0.95
4B:							
Braddock	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.13		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
4C:							
Braddock	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Shrink-swell	1.00	Too clayey	0.13		
		Frost action	0.50	Cutbanks cave	0.10		
4D:							

Table ENG-4. - Building Site Development - Continued

Giles County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
4D:							
Braddock	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.13		
		Shrink-swell	1.00	Cutbanks cave	0.10		
4E:							
Braddock	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.13		
		Shrink-swell	1.00	Cutbanks cave	0.10		
5C:							
Carbo	90	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Depth to bedrock	0.84
		Low strength	1.00	Too clayey	1.00	Droughty	0.21
		Depth to hard bedrock	0.84	Cutbanks cave	0.10	Slope	0.04
Rock outcrop	5	Not Rated		Not Rated		Not Rated	
Wet spots	2	Not Rated		Not Rated		Not Rated	
5D:							
Carbo	90	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	0.84
		Low strength	1.00	Too clayey	1.00	Droughty	0.21
Rock outcrop	5	Not Rated		Not Rated		Not Rated	
6F:							
Carbo	45	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	0.84
		Low strength	1.00	Too clayey	1.00	Droughty	0.21
Rock outcrop	45	Not Rated		Not Rated		Not Rated	
7:							
Chagrin	90	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.80	Flooding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
Frequently flooded	5	Not Rated		Not Rated		Not Rated	
8:							
Chagrin variant	90	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Cutbanks cave	1.00	Droughty	0.76

Table ENG-4. - Building Site Development - Continued

Giles County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
9: Chavies variant	90	Somewhat limited Flooding	0.40	Somewhat limited Depth to saturated zone Cutbanks cave	0.82 0.10	Not limited	
10B: Cotaco	85	Very limited Low strength Depth to saturated zone	1.00 0.19	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Somewhat limited Depth to saturated zone	0.19
Seep areas	5	Not Rated		Not Rated		Not Rated	
10C: Cotaco	90	Very limited Low strength Slope Depth to saturated zone	1.00 0.37 0.19	Very limited Depth to saturated zone Slope Cutbanks cave	1.00 0.37 0.10	Somewhat limited Slope Depth to saturated zone	0.37 0.19
Seep areas	5	Not Rated		Not Rated		Not Rated	
11D: Faywood	90	Very limited Slope Low strength Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Too clayey	1.00 1.00 0.32	Very limited Slope Depth to bedrock Content of large stones	1.00 0.06 <0.01
11F: Faywood	90	Very limited Slope Low strength Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Too clayey	1.00 1.00 0.32	Very limited Slope Depth to bedrock Content of large stones	1.00 0.06 <0.01
12: Fluvaquents	80	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.80 0.10	Very limited Flooding Depth to saturated zone	1.00 1.00
Ponded soils	5	Not Rated		Not Rated		Not Rated	
13B: Frederick	90	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Very limited Too clayey Cutbanks cave	1.00 0.10	Not limited	

Table ENG-4. - Building Site Development - Continued

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Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
13C: Frederick	90	Very limited Low strength Shrink-swell Frost action	 1.00 1.00 0.50	Very limited Too clayey Slope Cutbanks cave	 1.00 0.37 0.10	Somewhat limited Slope	 0.37
13D: Frederick	90	Very limited Slope Low strength Shrink-swell	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 1.00 0.10	Very limited Slope	 1.00
13E: Frederick	90	Very limited Slope Low strength Shrink-swell	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 1.00 0.10	Very limited Slope	 1.00
14B: Frederick	90	Very limited Low strength Shrink-swell Frost action	 1.00 1.00 0.50	Very limited Too clayey Cutbanks cave	 1.00 0.10	Somewhat limited Gravel content Content of large stones	 0.22 <0.01
14C: Frederick	90	Very limited Low strength Shrink-swell Frost action	 1.00 1.00 0.50	Very limited Too clayey Slope Cutbanks cave	 1.00 0.37 0.10	Somewhat limited Slope Gravel content Content of large stones	 0.37 0.22 <0.01
14D: Frederick	90	Very limited Slope Low strength Shrink-swell	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 1.00 0.10	Very limited Slope Gravel content Content of large stones	 1.00 0.22 <0.01
14E: Frederick	90	Very limited Slope Low strength Shrink-swell	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 1.00 0.10	Very limited Slope Gravel content Content of large stones	 1.00 0.22 <0.01
15C:							

Table ENG-4. - Building Site Development - Continued

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Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
15C:							
Frederick	90	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.37
		Shrink-swell	1.00	Slope	0.37	Gravel content	0.22
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	<0.01
15D:							
Frederick	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00	Gravel content	0.22
		Shrink-swell	1.00	Cutbanks cave	0.10	Content of large stones	<0.01
15E:							
Frederick	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00	Gravel content	0.22
		Shrink-swell	1.00	Cutbanks cave	0.10	Content of large stones	<0.01
16D:							
Frederick	70	Very limited		Very limited		Very limited	
		Low strength	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Too clayey	1.00		
		Slope	1.00	Cutbanks cave	0.10		
Rock outcrop	20	Not Rated		Not Rated		Not Rated	
16F:							
Frederick	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Rock outcrop	20	Not Rated		Not Rated		Not Rated	
17C:							
Gilpin	90	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Frost action	0.50	Depth to soft bedrock	0.16	Depth to bedrock	0.16
		Slope	0.37	Cutbanks cave	0.10		
17D:							
Gilpin	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Depth to soft bedrock	0.16	Depth to bedrock	0.16
		Frost action	0.50	Cutbanks cave	0.10		

17F:

Table ENG-4. - Building Site Development - Continued

Giles County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
17F:							
Gilpin	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Depth to soft bedrock	0.16	Depth to bedrock	0.16
		Frost action	0.50	Cutbanks cave	0.10		
18D:							
Gilpin	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Depth to soft bedrock	0.16	Depth to bedrock	0.16
		Frost action	0.50	Cutbanks cave	0.10		
18F:							
Gilpin	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Depth to soft bedrock	0.16	Depth to bedrock	0.16
		Frost action	0.50	Cutbanks cave	0.10		
19C:							
Jefferson	90	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.04
		Slope	0.04	Slope	0.04		
20C:							
Jefferson	90	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
20E:							
Jefferson	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00		
21C:							
Jefferson	90	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
21E:							
Jefferson	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00		
21F:							
Jefferson	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00		
22D:							

Table ENG-4. - Building Site Development - Continued

Giles County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
22D:							
Jefferson variant	60	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Content of large stones Droughty	1.00 0.92 0.02
Drall	30	Very limited Slope Content of large stones	1.00 0.54	Very limited Cutbanks cave Slope Depth to hard bedrock	1.00 1.00 0.71	Very limited Content of large stones Slope Droughty	1.00 1.00 1.00 0.92
22F:							
Jefferson variant	60	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Content of large stones Droughty	1.00 0.92 0.02
Drall	30	Very limited Slope Content of large stones	1.00 0.54	Very limited Slope Cutbanks cave Depth to hard bedrock	1.00 1.00 0.71	Very limited Slope Content of large stones Droughty	1.00 1.00 1.00 0.92
23F:							
Lehew	60	Very limited Slope Frost action Depth to hard bedrock	1.00 0.50 0.03	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Slope Droughty Content of large stones	1.00 0.30 0.08
Wallen	30	Very limited Slope Depth to hard bedrock	1.00 0.35	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Slope Droughty Gravel content	1.00 0.77 0.54
24C:							
Lily	85	Somewhat limited Depth to hard bedrock Shrink-swell	0.06 <0.01	Very limited Depth to hard bedrock Cutbanks cave	1.00 1.00	Somewhat limited Gravel content Depth to bedrock Content of large stones	0.22 0.06 <0.01
24D:							
Lily	85	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 0.06 <0.01	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 1.00	Very limited Slope Gravel content Depth to bedrock	1.00 0.22 0.06
25F:							

Table ENG-4. - Building Site Development - Continued

Giles County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
25F:							
Lily	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Gravel content	0.22
		Depth to hard bedrock	0.06	Cutbanks cave	1.00	Depth to bedrock	0.06
26F:							
Lily	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.06	Slope	1.00	Gravel content	0.22
		Shrink-swell	<0.01	Cutbanks cave	1.00	Depth to bedrock	0.06
27C:							
Lily	55	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Gravel content	0.22
		Depth to hard bedrock	0.06	Cutbanks cave	1.00	Depth to bedrock	0.06
		Slope	0.04	Slope	0.04	Slope	0.04
Bailegap	35	Somewhat limited		Very limited		Very limited	
		Frost action	0.50	Cutbanks cave	1.00	Content of large stones	1.00
		Slope	0.04	Slope	0.04		
		Content of large stones	0.03	Content of large stones	0.03	Slope	0.04
27E:							
Lily	70	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Gravel content	0.22
		Depth to hard bedrock	0.06	Cutbanks cave	1.00	Depth to bedrock	0.06
Bailegap	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Content of large stones	1.00
		Content of large stones	0.03	Content of large stones	0.03		
27F:							
Lily	65	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Gravel content	0.22
		Depth to hard bedrock	0.06	Cutbanks cave	1.00	Depth to bedrock	0.06
Bailegap	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Content of large stones	1.00
		Content of large stones	0.03	Content of large stones	0.03		

28E:

Table ENG-4. - Building Site Development - Continued

Giles County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
28E:							
Lily	55	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Gravel content	0.22
		Depth to hard bedrock	0.06	Cutbanks cave	1.00	Depth to bedrock	0.06
Bailegap	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Content of large stones	1.00
		Content of large stones	0.03	Content of large stones	0.03		
29B:							
Nolichucky	90	Very limited		Very limited		Not limited	
		Low strength	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50				
		Frost action	0.50				
29C:							
Nolichucky	90	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Cutbanks cave	1.00	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50				
29D:							
Nolichucky	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50				
30C:							
Nolichucky	90	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Cutbanks cave	1.00	Gravel content	0.54
		Shrink-swell	0.50	Slope	0.37	Slope	0.37
		Frost action	0.50			Content of large stones	<0.01
30D:							
Nolichucky	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	1.00	Gravel content	0.54
		Shrink-swell	0.50			Content of large stones	<0.01
30F:							
Nolichucky	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	1.00	Gravel content	0.54
		Shrink-swell	0.50			Content of large stones	<0.01

Table ENG-4. - Building Site Development - Continued

Giles County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
31C:							
Poplimento	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Shrink-swell	0.78	Too clayey	0.13		
		Frost action	0.50	Cutbanks cave	0.10		
31D:							
Poplimento	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.13		
		Shrink-swell	0.78	Cutbanks cave	0.10		
31E:							
Poplimento	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.13		
		Shrink-swell	0.78	Cutbanks cave	0.10		
32F:							
Rock outcrop	65	Not Rated		Not Rated		Not Rated	
Berks							
	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.95	Slope	1.00	Droughty	1.00
				Cutbanks cave	0.10	Depth to bedrock	0.95
33D:							
Sequoia	90	Very limited		Very limited		Very limited	
		Low strength	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Too clayey	0.32	Depth to bedrock	0.29
		Shrink-swell	0.94	Depth to soft bedrock	0.29		
33F:							
Sequoia	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.32	Depth to bedrock	0.29
		Shrink-swell	0.94	Depth to soft bedrock	0.29		
34:							
Slickens	90	Not Rated		Not Rated		Not Rated	
35B:							
Timberville variant	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	1.00
		Low strength	1.00	Depth to saturated zone	0.96		
		Frost action	0.50	Flooding	0.80		
Frequently flooded	3	Not Rated		Not Rated		Not Rated	
35C:							

Table ENG-4. - Building Site Development - Continued

Giles County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
35C:							
Timberville variant	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	1.00
		Low strength	1.00	Depth to saturated	0.96	Slope	0.37
		Frost action	0.50	zone			
				Flooding	0.80		
ZZ900:							
Water	100	Not Rated		Not Rated		Not Rated	